

Leveraging rapid-cycle phone surveys for improved immunization: a case study for Madagascar

Azaïs V.¹, Neill R.¹, Reerinck I.¹, Rakotomanana A.H.¹, Sieleunou I.¹, Ramahatanaharisoa A.W.³, Andriantavison R.L.⁴, Yasmine L.L.², Hanitriniala S.P.³, Randrianasolo F.H.³, Rasamiharimalala L.Z.³, Raharinivo M.S.M.³, Andrianirinarison J.C.³, Nomenjanahary N.P.M.³, Rakotondratsara M.A.³, Andriambelo M.M.³, Lorin J.⁵, Hansen, P.¹.

¹Global Financing Facility for Women, Adolescents, and Children, ²Ministry of Public Health of Madagascar; ³National Institute of Community and Public Health; ⁴World Bank; ⁵Gavi, the Vaccine Alliance



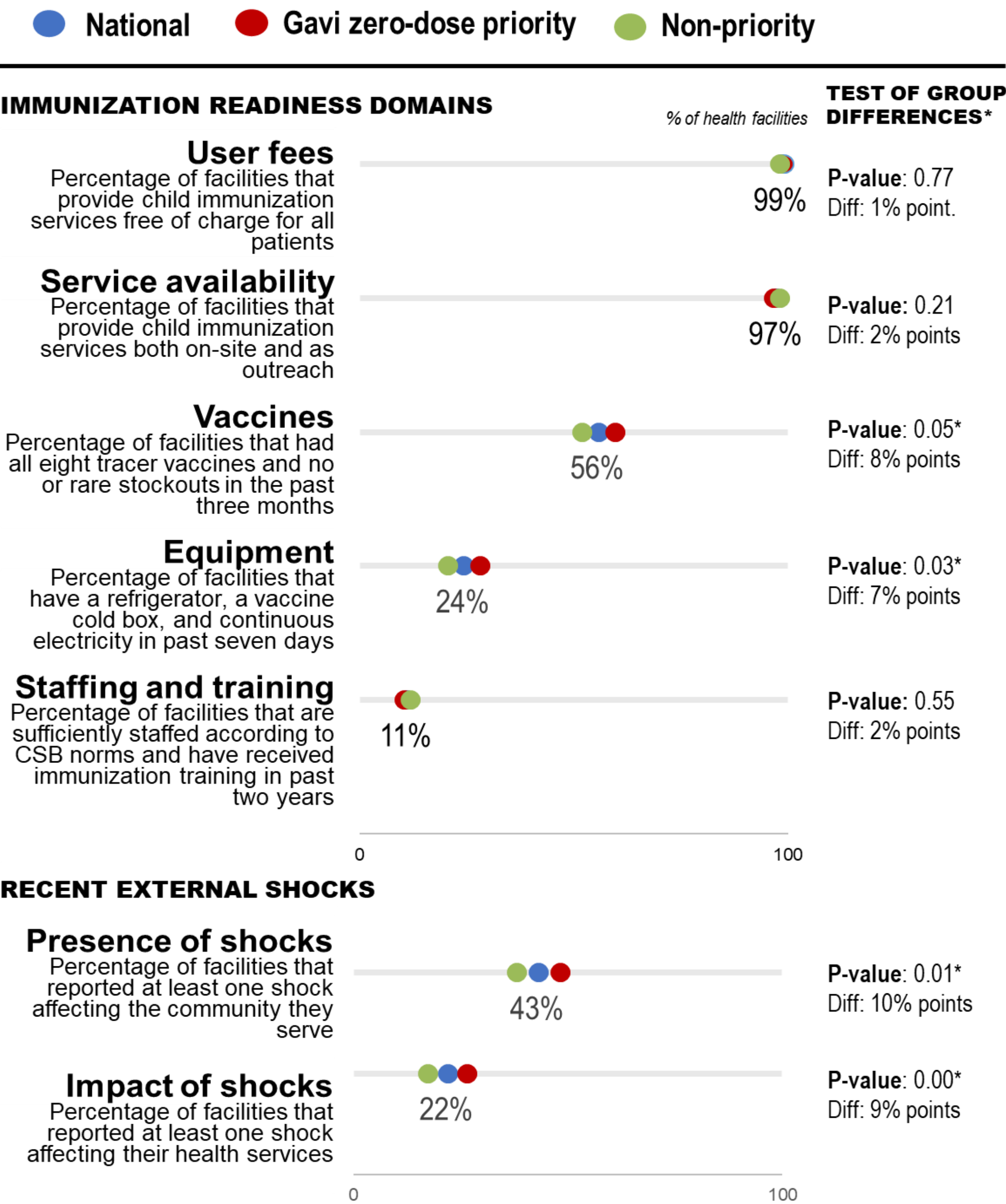
BACKGROUND

Addressing the needs of zero-dose children requires the timely identification of immunization barriers. The Madagascar Ministry of Public Health, in partnership with the Global Financing Facility and GAVI, is conducting a quarterly health facility panel phone survey to monitor immunization service readiness over time, capture the influence of external shocks on readiness, and compare readiness across zero-dose priority and non-priority geographies.

METHODS

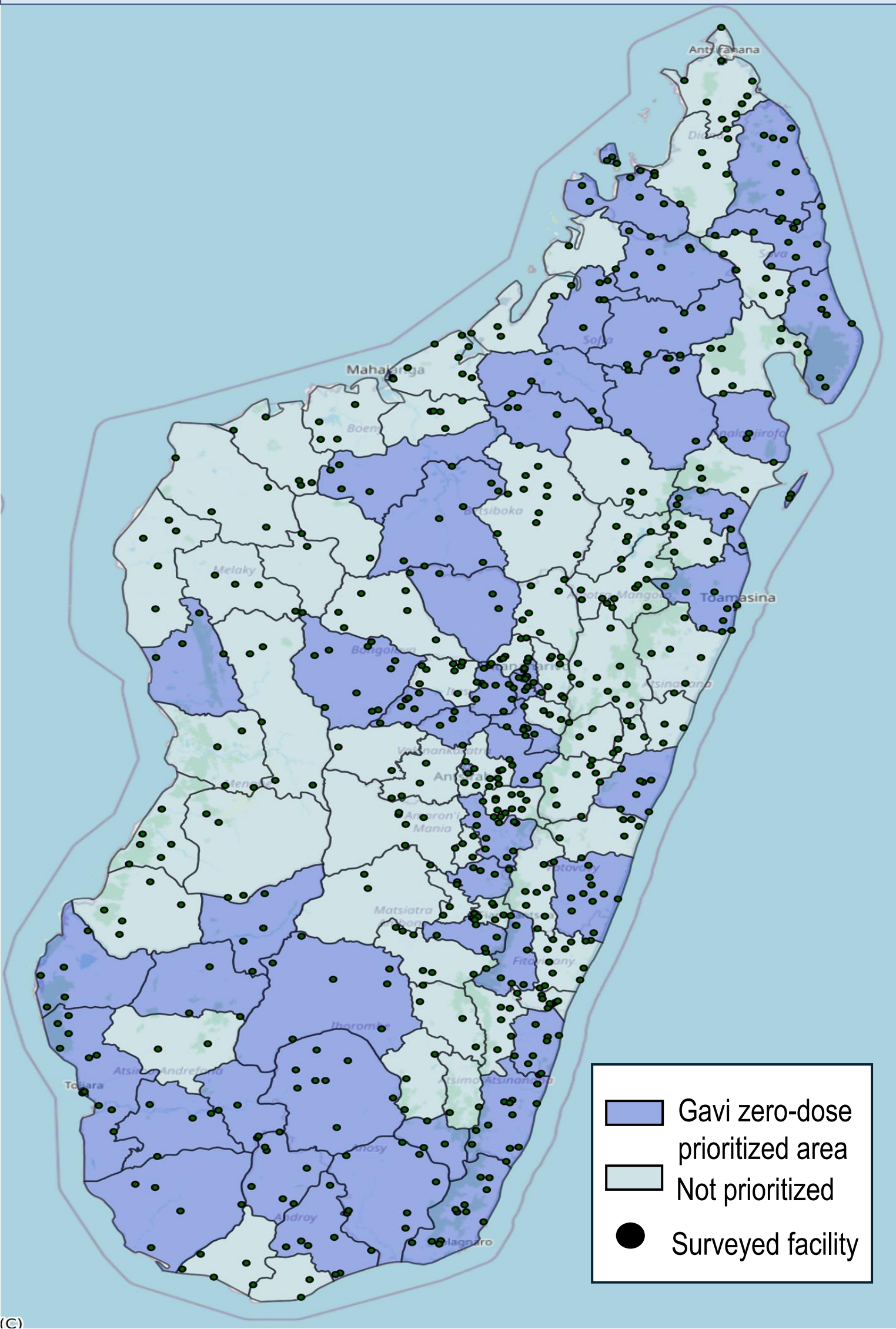
The first round of the GFF's FASTR rapid phone survey was conducted in a representative sample of 656 basic health centers (CSB) (Figure 1). Probabilistic sampling was conducted with stratification by facility type, geography, and Gavi's zero-dose area priority status. Composite indicators were constructed to assess immunization service readiness. Two-sample tests of proportions compared results between Gavi high-priority zero dose and non-priority areas.

Figure 2. Child immunization readiness snapshot



Note: * Indicates that the differences between the two groups are significant at the 5% level. All the indicators presented in this figure have been constructed by combining various survey questions.

Figure 1. Surveyed facilities and Zero-dose prioritized districts in Madagascar



Survey sample:
N = 656 CSB
23% of all 2,817 functional CSB facilities

12 June-02 July
Data collection

42 minutes
Average call duration

CSB type	38% CSB1 62% CSB2
Geography	8% Urban 93% Rural
Zero-dose priority status	50% high priority 50% non-priority

RESULTS

- #1** Health facilities in Madagascar met an average of 57% of the immunization service readiness tracer criteria. The rapid survey identified considerable gaps in immunization service readiness, particularly in the availability of tracer vaccines without stockouts, continuous electricity, and sufficient staffing and immunization training (Figure 2).
- #2** Nearly half of surveyed facilities reported being affected by external shocks, mainly natural disasters and outbreaks (due to the malaria season) (Figure 2).
- #3** Differences between high zero-dose priority areas and non-priority areas were minimal, though high-priority areas had relatively higher service availability and readiness scores. However, facilities in zero-dose areas were significantly more likely to report shocks in their catchment area that impacted service delivery.

RECOMMENDATIONS

Findings demonstrate the importance of capturing contextual information on shocks in addition to supply-side readiness indicators when monitoring the service availability and readiness of health facilities. Future rounds of this survey will capture additional indicators and qualitative insights related to immunization and will track the availability of key vaccines and related commodities at PHCs over time.

Reference: [1] World Health Organization and UNICEF. WHO-UNICEF Estimates of National Immunization Coverage, 1990–2022: Immunization Madagascar 2023 country profile